DOCUMENT RESUME

ED 382 051 FL 800 900

AUTHOR	Taylor, Eric H.; Barton, Lisa S.
TITLE	Southeast Asian Refugee English Proficiency & Education in Texas: Findings from the Texas Refugee Study.
INSTITUTION	Texas State Dept. of Human Services, Austin.; Texas State Office of Immigration and Refugee Affairs, Austin.
PUB DATE	Apr 94
NOTE	59p.
AVAILABLE FROM	Texas Office of Immigration & Refugee Affairs, P.O. Box 149030, 701 West 51st Street, Austin, TX 78714-9030.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Data Analysis; Data Collection; Educational Status Comparison; Education Work Relationship; English (Second Language); Factor Analysis; Family Income; Functional Literacy; Health Needs; *Interviews; *Language Proficiency; *Quality of Life; *Questionnaires; *Refugees; Socioeconomic Status; Surveys
IDENTIFIERS	*Southeast Asians; *Texas

ABSTRACT

This document is the first in a series of reports about Texas's refugees and is an analysis of more than 1,000 Vietnamese and Laotian refugee interviews. What follows is an examination of the relationships English proficiency and education have with Southeast Asian refugees' income, mammogram screenings, smoking, citizenship, possession of a driver's license, and self-reported quality of life measures among Southeast Asians living in Houston, Texas. The survey instrument was a questionnaire with approximately 300 variables covering demographics, education, employment, and other factors mentioned above. The interviews were conducted in the refugees' native language of Vietnamese or Laotian. Interviewers were leaders from the Vietnamese and Laotian communities who were specifically trained in how to conduct the survey without biasing responses. All interviewees were pre-approved. Random verification checks were performed on 10% of the interviews. Most of the interviews were conducted by telephone, a factor that excluded those not owning a telephone. As participants were required to be at least 18 years of age, the results do not necessarily represent the experiences of younger Southeast Asian refugees. Several appendices containing data on the variables are included. (Contains 13 references.) (CK)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Eric N. Taylor

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

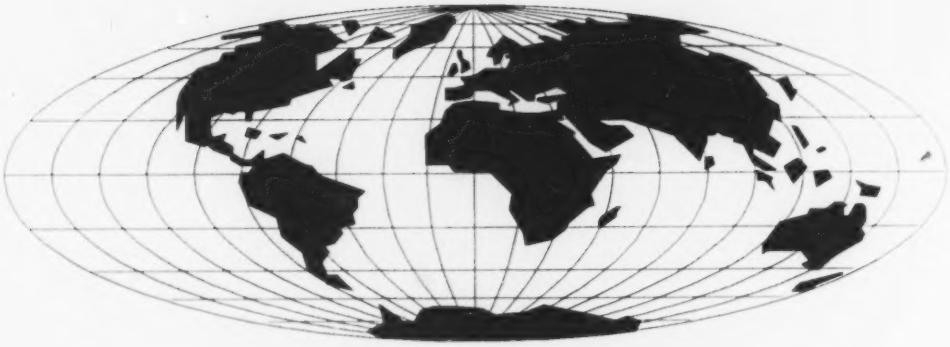
This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 382 051

Southeast Asian Refugee English Proficiency & Education In Texas



Findings From

The Texas Refugee Study

Texas Office of Immigration & Refugee Affairs

Texas Department of Human Services

FL 800900

BEST COPY AVAILABLE

In administering its programs, the Texas Department of Human Services does not discriminate, directly or through contractual or other arrangements, on the grounds of race, color, national origin, age, sex, disability, political beliefs, or religion.

Southeast Asian Refugee English Proficiency & Education In Texas

Findings From

The Texas Refugee Study

Texas Office of Immigration & Refugee Affairs

Texas Department of Human Services

Eric H. Taylor

Lisa S. Barton

The Texas Refugee Study

Interviewer Managers
Carmen L. Cutter, Steven Phuc Hoang,
Khin Thayravahn, Eugene A. Barg, Michael W. Ayele

Interviewers
Michael W. Ayele, Eugene A. Barg, Boris Belyi, Goitom Bisrat, Khoi Tien Bui, Wing Cam, Chy Duong Do, Tue Quang Dinh, Hi Thi Duong, Enguday Geberhiwot, Sally Gribcova, Martin Quach Huynh Ha, Steven P. Hoang, Savann Kruoch, Thom Van Luong, Van H. Ly, Tina Nguyen, Van-Khanh T. Nguyen, Abdul H. Osman, Lee Pham, Paul P. Phongsy, Phoutha Phothisane, Chantharin Saukam, Sothy Pin Saukam, Mulugeta Sishagn, Valentin Tamarchenko, Khin Thayravanh, Stephen G. Tran, Thu T. Vu, Hanh C. Vuong

Interviewer Training
University of Texas, Office of Survey Research

Data Processing
Adriana Hernandez, Jennifer Everett, and Lanita Vega

Special thanks to:
Governor Ann Richards
Kassahun Bisrat, Bob Fleming, Ngoc-Linh Nguyen,
YMCA of Greater Houston, Refugee Services Alliance,
Texas Center for Employment Services, Thuc Nguyen,
Bill Holland, and Phon A. Nguyenkhoa

Eric H. Taylor
Principle Investigator
Director of Research

Marguerite Rivera Houze
Director
Texas Office of Immigration & Refugee Affairs

TABLE OF CONTENTS

Introduction 1

English Proficiency & Education and:

- Income 3
- Mammogram Screenings 7
- Smoking 9
- Citizenship 11
- Driver's License 13
- Quality of Life, Expectation of U S Life & Future 15

Learning English & Making Money 17

Tax Revenues and English Proficiency 19

Data Analysis Appendices

- A. Texas Refugee Study Methodology 21
- B. Variables 24
- C. English Proficiency and Educational Levels 28
- D. Income 30
- E. Mammogram Screenings 35
- F. Smoking 37
- G. Citizenship 39
- H. Driver's License 41
- I. Quality of Life, Expectation of U.S. Life & Future 43
- J. English Proficiency & Income Path Analysis 46
- K. Tax Revenues, ESL Costs, & Calculations for Investment Returns 48

References 53

INTRODUCTION

This is the first in a series of reports about Texas's refugees. *Southeast Asian Refugee English Proficiency & Education* is an analysis of more than 1,000 Vietnamese and Laotian refugee interviews. The interviews were part of the Texas Refugee Study, Texas's largest study of refugees ever (see *Methodology*, Appendix A). The findings of the study are blended with other research and information to better understand the Southeast Asian refugees' experience in the U.S..

The resettlement of Southeast Asian refugees in the U.S. began in 1975 when many Vietnamese, Laotians, and Cambodians were forced to flee their home country as a result of persecution or a well-founded fear of persecution. U.S. government policy permitted continued immigration of Southeast Asians in an effort to reunite refugees with their family members. In addition to the Southeast Asians resettled in Texas by the State Department, thousands of individuals and their families have migrated to Texas from other states. This migration occurred, in part, due to the lure of Texas's fishing industry in the 1980's and also because of Texas's warm climate. Although the estimates of the number of refugees in Texas vary, there are approximately 40,000 Southeast Asian refugees in Houston and about 100,000 throughout the state.

Many Southeast Asian refugees have experienced loss and tragedy in their native homeland. Their struggle included flight from their countries by boat or on foot and then detention at camps in countries of first asylum. After being granted refugee status, the Southeast Asian refugees arrived in the U.S. faced with another struggle. This time the struggle was to adapt to a new culture, to understand a new world, and to make a better life. What defines "a better life" is different for everyone, but money, health, rights, and mobility can be considered among the most important. Two other elements that help make life better are education and communicating with others in society. This report relates the latter two - education and, in the case of Southeast Asian refugees, English proficiency - to other factors contributing to an improved life.

The levels of education and English proficiency vary widely among Southeast Asian refugees. The first group of Vietnamese to arrive in the U.S. in 1975 were urbanized or the "elite," and they were typically more educated than people from rural areas. Since that time the educational level of new Southeast Asian refugees has varied from no education to college-degreed, but on average this population has about the equivalent of a high school education (see Appendix C). Once in the U.S., about one third of Southeast Asians have gone to public schools or college.

English proficiency levels are also widely varied among Southeast Asian refugees (see Appendix C). Some learned English in their country of origin, but the vast majority learned their English here in the U.S.. Individuals who enrolled in public school or college are at a great advantage because English has become a part of their daily education.

Others have taken adult English as a Second Language (ESL) courses to improve their English. Many have learned English in U.S. schools, by reading newspapers, magazines or books, by talking and listening to people in the U.S., and from watching TV or listening to the radio. There are others who have learned almost no English.

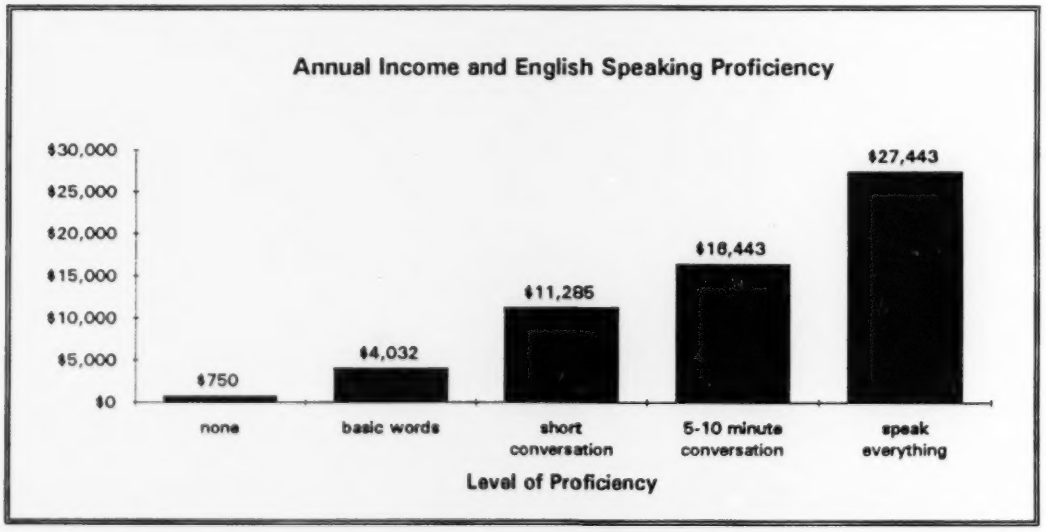
What follows is an examination of the relationships English proficiency and education have with Southeast Asian refugees' income, mammogram screenings, smoking, citizenship, possession of a driver's license, and self-reported quality of life measures among Southeast Asians living in Houston, Texas.

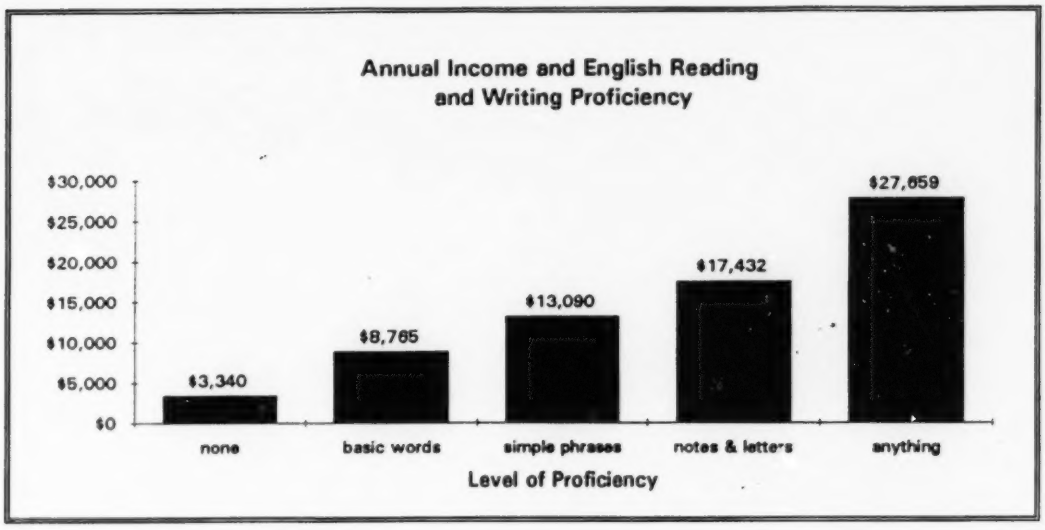
INCOME

Perhaps it is stating the obvious, but money is among the most essential items for survival in our society. Money has the ability to purchase food, shelter, clothing, and virtually every other material good needed or wanted. The U.S. government says an individual needs a minimum of $7,517 a year to live (U.S. Census Bureau, 1994), and people with less than this amount are said to be living below the poverty line. According to the 1990 U.S. Census, 18.1% of Texans and 15.1% of people living in the U.S. live below the poverty line.

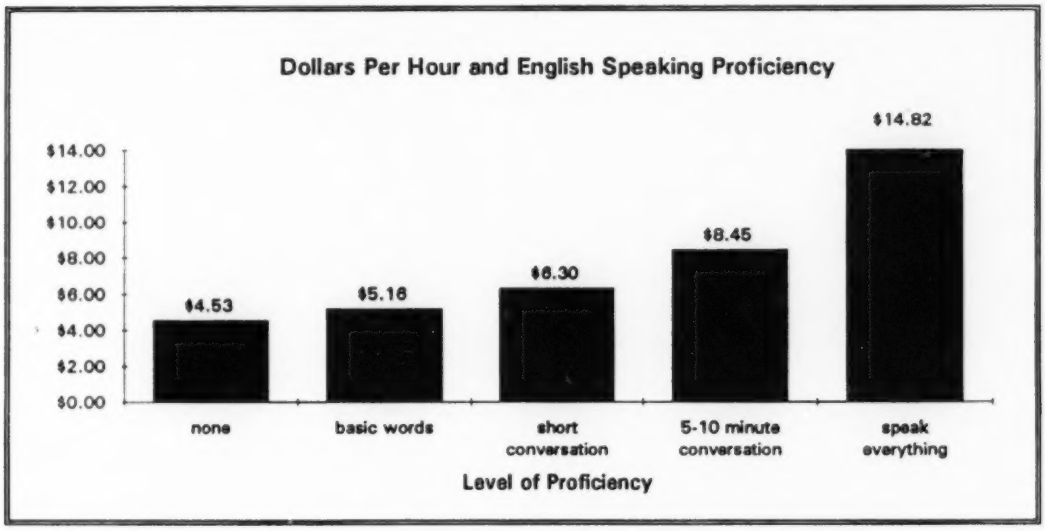
The rate of poverty is higher among newly arriving refugees because they usually are at an economic disadvantage when first arriving in the U.S.. Refugees seldom have U.S. work experience, usually are accustomed to a different work culture, and often do not have the English communication skills necessary to earn an income to sustain self-sufficiency. The U.S. government provides some funds to assist in the resettlement of refugees, but these funds are very limited and declining.

Results of the Texas Refugee Study show that Southeast Asian refugees' English abilities vary widely. Some Southeast Asians speak, read, and write English perfectly while others have virtually no English skills. Most, however, have English skills between these extremes. Analysis of English speaking proficiency and annual income shows them to be very closely linked for Southeast Asian refugees who are working or looking for work. Being proficient in English is clearly an advantage, however, being bilingual appears to be the key.

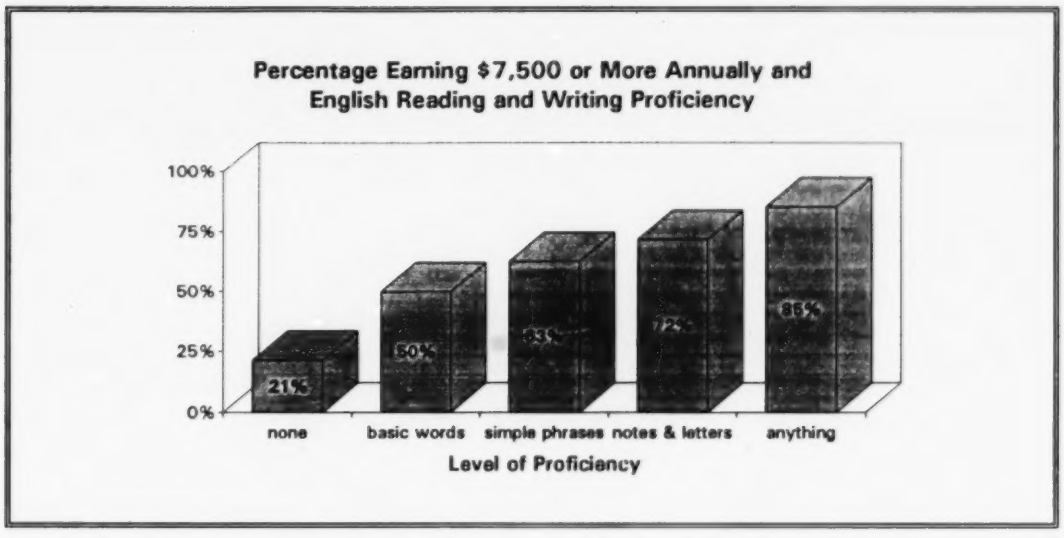




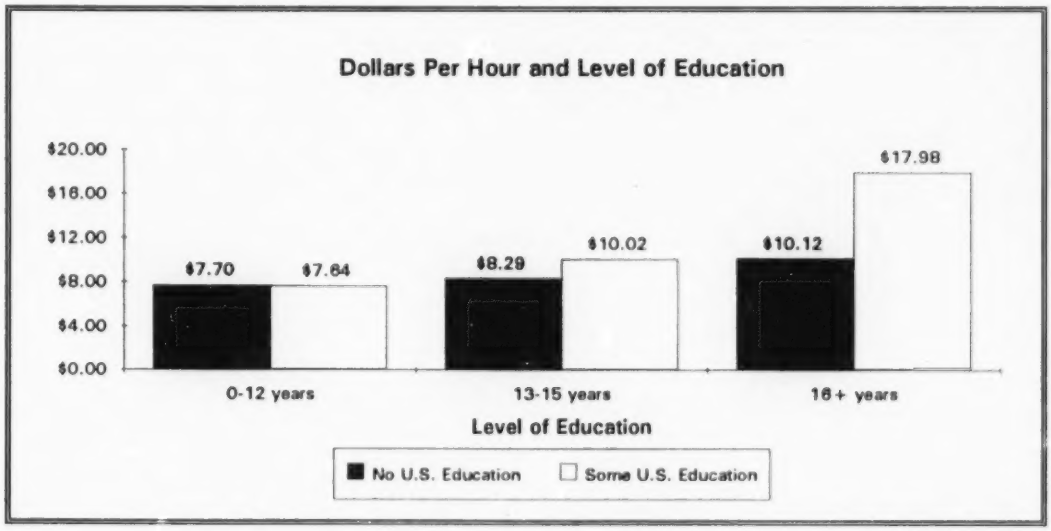
As shown above, English reading and writing are closely associated with annual income. The differences between English proficiencies can be clearly seen in the hourly wages of Southeast Asians who are currently working as well

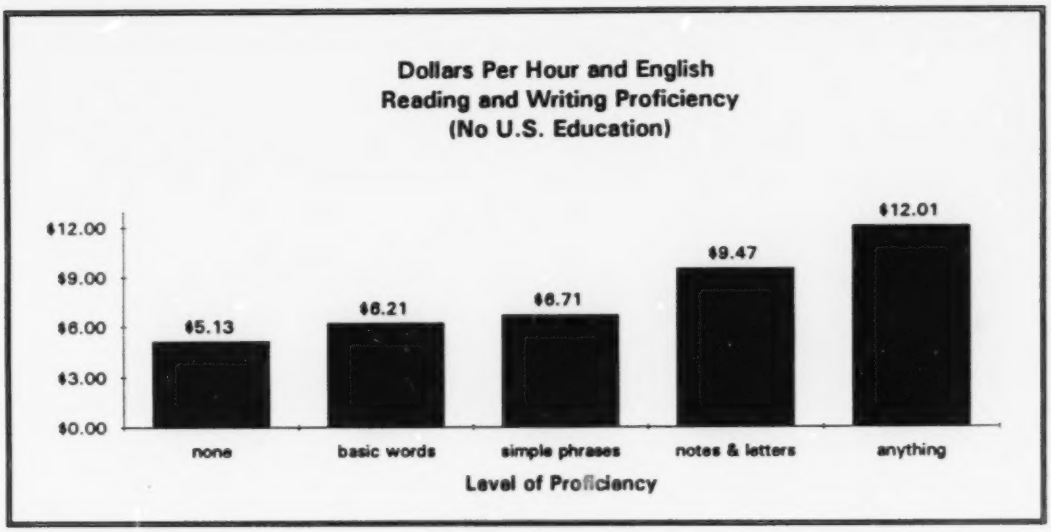


Obviously, not every Southeast Asian who can not speak or read English makes little money, nor does everyone with excellent English skills earn a high income. However, the percentage of Southeast Asians who make $7,500 or more in annual income, approximately the poverty line, increases with increases in English ability.



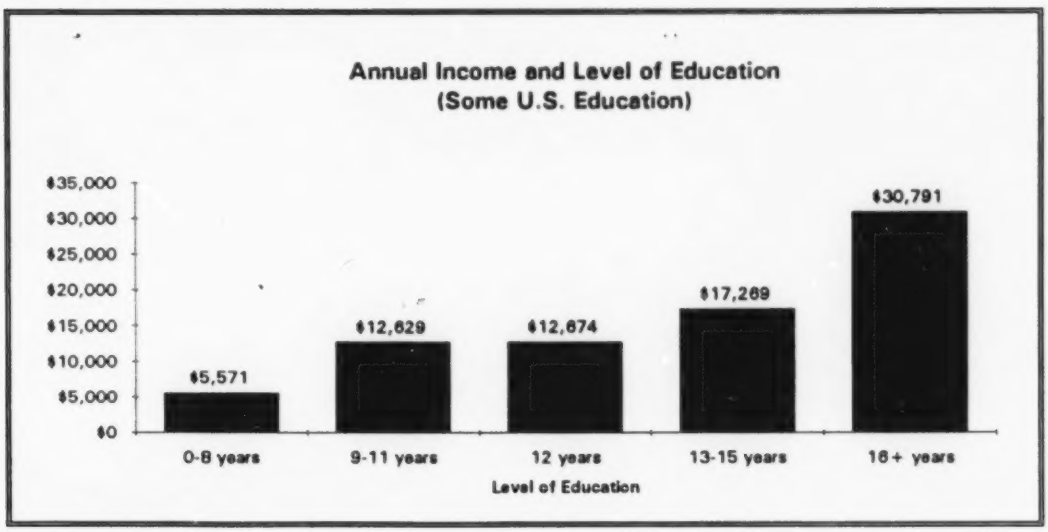
Similar to English proficiency, education is also significantly linked to the amount of income a Southeast Asian refugee earns. However, the amount of education is more important if some of the education is received in the U.S. When some education is received in the U.S., college educated Southeast Asians make $10 an hour more, on average, than individuals with a high school diploma or less. For Southeast Asians who have not attended school in the U.S., the difference between a college degree and a high school degree translates to only about $2 an hour.





For Southeast Asian refugees not educated in the U.S., average pay increases as English reading and writing improve. Thus, English proficiency may be more important in determining income for the non-U.S. educated refugee than years of education.

Southeast Asian refugees who attend college in the U.S. increase the likelihood of their economic success. As shown below, college educated Southeast Asians earn more than $30,000 a year on average. The increased incomes for U.S. educated Southeast Asian refugees may be, among other things, the result of the U.S. educational curriculum, the English learned in school, and the increased exposure to U.S. life and people.



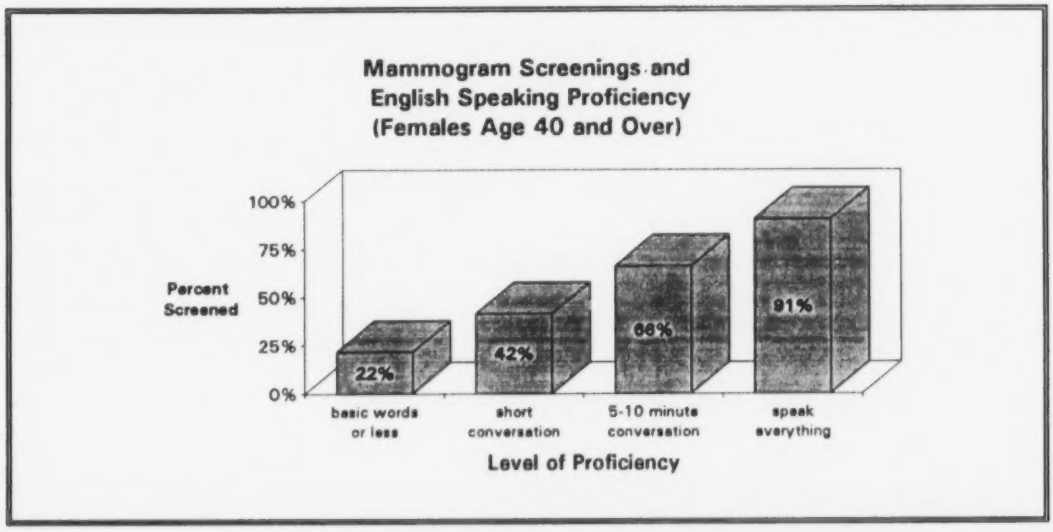
MAMMOGRAM SCREENINGS

Breast cancer is among the leading killers of women in this country. Early detection can help in the treatment of cancer, and the best way to detect a problem is with a mammogram screening. The American Cancer Society and the American College of Obstetricians advise women forty and older to get regular mammogram screenings, and the National Cancer Institute says the facts show that mammography saves lives. Screenings play an important role in preventative health care, and, in addition to saving lives, early detection may help to prevent the need for more expensive medical procedures associated with breast cancer.

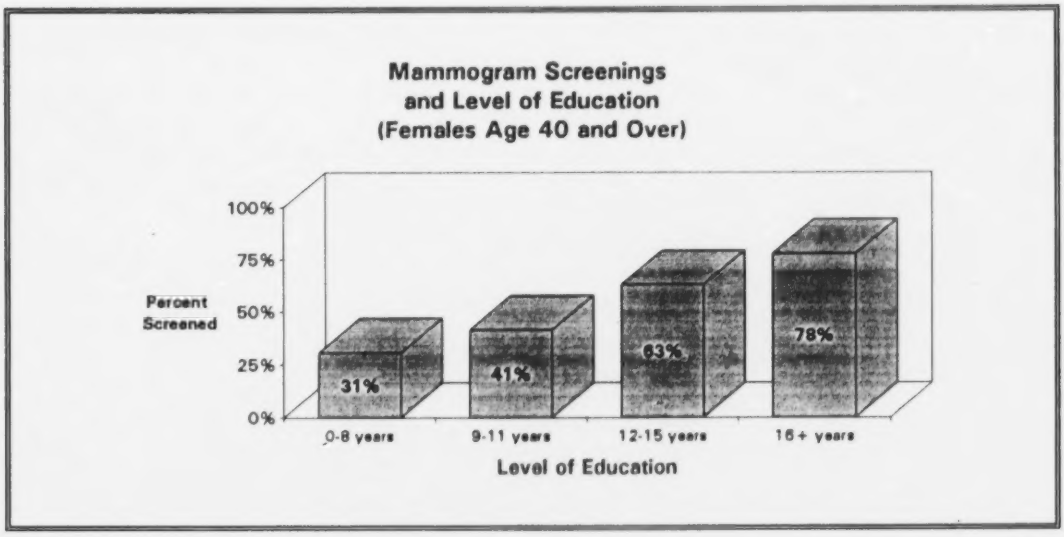
Results of the Texas Refugee Study indicate that among Southeast Asian female refugees forty and older less than half have been tested for breast cancer with a mammogram. Seventy percent of Texas's general population of women forty and older have been screened (Texas Department of Health [TDH], 1992). Of Southeast Asian women forty and older who have never had a mammogram, 45% said they had never heard of a mammogram and another 43% said it was not recommended to them by a doctor.

A major factor affecting the likelihood of having a mammogram is the length of time a refugee woman has been in the country. Of the Southeast Asian women arriving before 1990 age forty and older, 59% had been tested. However, of similarly aged women arriving in 1990 or after, only 13% had been tested. Another finding is that 80% of Southeast Asian women age forty and older have some kind of health insurance. About half have private insurance, and 30% have insurance aided by the government. Thus, almost one in three Southeast Asian refugee women in the recommended age range for mammogram screenings have insurance, but have never been screened.

One explanation for Southeast Asian women having mammograms at a lower rate than Texas's general population of women may have to do with English skills. Knowing about or asking for specific tests such as a mammogram may require certain English proficiencies. For Southeast Asian women refugees, the ability to speak English proficiently is very significantly linked to having had a mammogram.



Additionally, it seems logical that the more educated a person is, the more likely she is to have heard about current medical procedures such as mammogram screenings. This appears to be true with mammograms for Southeast Asian women at different levels of education.

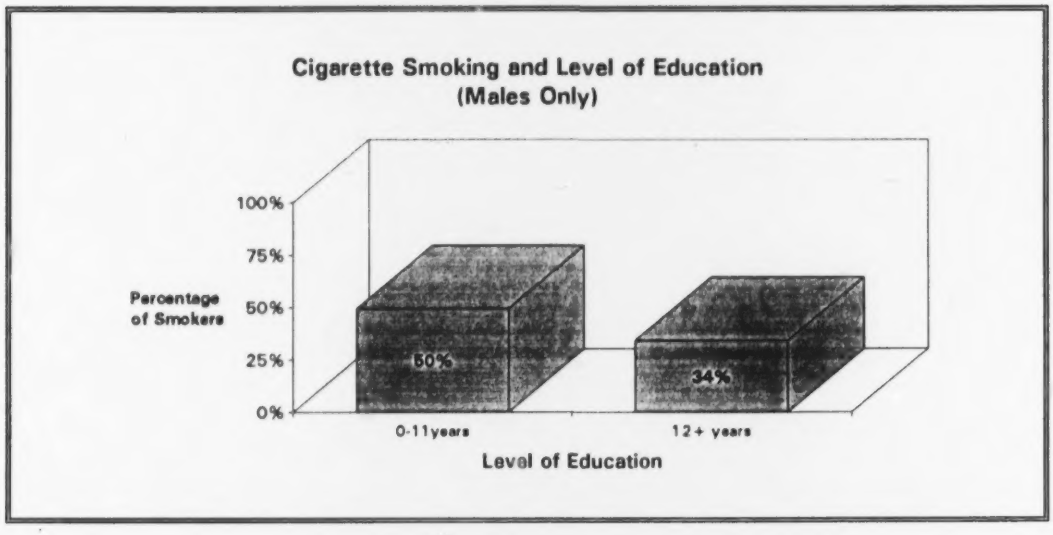


SMOKING

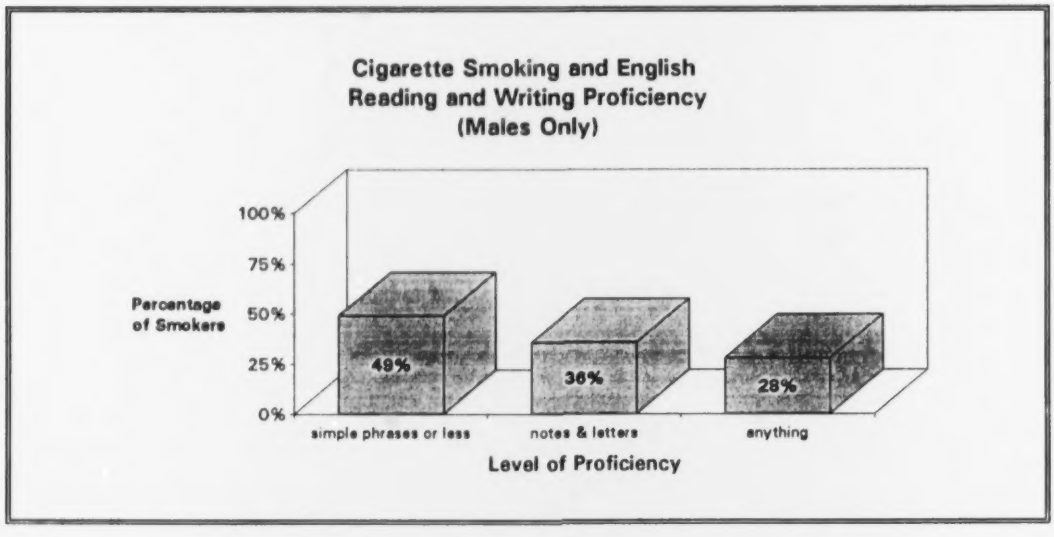
Smoking has been shown to cause cancer, heart disease, and a wide variety of other human illnesses. The evidence has also been extended to show that non-smokers who breathe smoke are at risk of similar illnesses. This is of particular concern to Southeast Asian refugees because males have been found to smoke at a much higher rate than the average U.S. resident (Bates, Hill, & Barrett-Connor, 1989; Jenkins, McPhee, Bird & Bonilla, 1990; Center for Disease Control [CDC], 1992). A 1989 study of Southeast Asians in Washington State found that 42.5% of men and 5.7% of women smoke (Frost et al, 1989).

Results of the Texas Refugee Study show that only 1% of Southeast Asian females smoke, but 40% of males currently smoke. This rate is considerably higher than the 25% of Texas's general population of males who smoke (Texas Department of Health [TDH], 1992). One reason smoking is so prevalent may be the lack of educational information Southeast Asian refugees have received about the harmful effects of smoking. There is evidence that informational campaigns can affect smoking behavior. According to a University of California at San Diego study, California's current anti-smoking informational campaign is reported to have helped reduce smoking by 28% since 1988 (cited in *As Smoking*, 1994) and may have done more to improve public health than anything since the construction of public sewers (National Public Radio, 3/94).

While much information exists about the harmful effects of smoking, exposure to public health information may be a product of a person's level of education. This is supported by the finding that Southeast Asian male refugees' smoking behavior is significantly related to the amount of education received. Males who have not finished high school smoke at a rate of about 1 in 2, while Southeast Asian males who have a high school degree or more education smoke at a rate of about 1 in 3.



Another key barrier to public health information is limitations in the ability to understand spoken or written English. This seems to be true for Southeast Asian male refugees, as smoking behavior is significantly related to English proficiency.



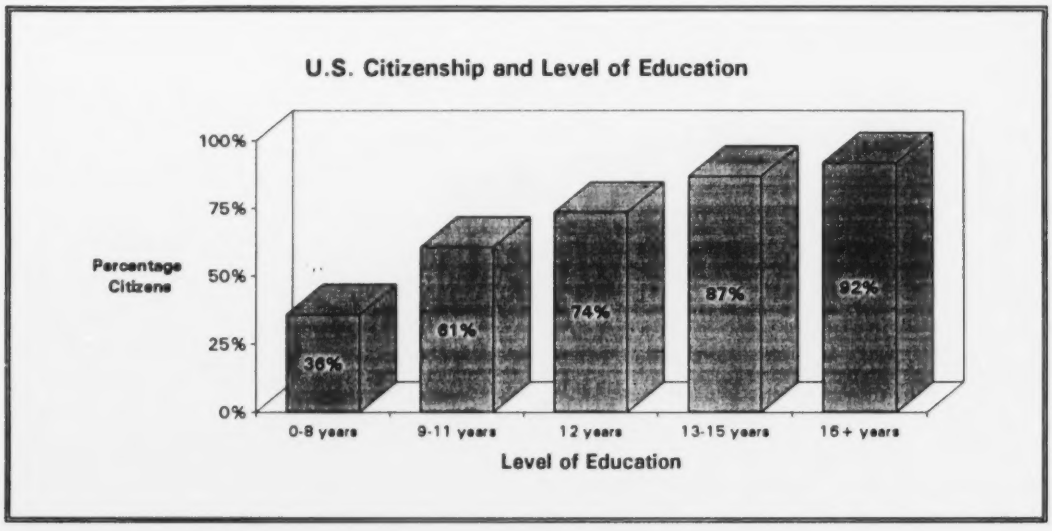
CITIZENSHIP

U.S. citizenship is taken for granted by most native-born persons. For people born outside the country, becoming a naturalized citizen offers certain privileges. It permits immigrants and refugees to vote, permits applications to bring family members to the U.S., and allows re-entry to the U.S. if traveling outside the country. Citizenship may become even more important in the future because legal residents who are not citizens may lose benefits they are currently eligible to receive. For example, some federal health care and welfare proposals exclude all non-citizens.

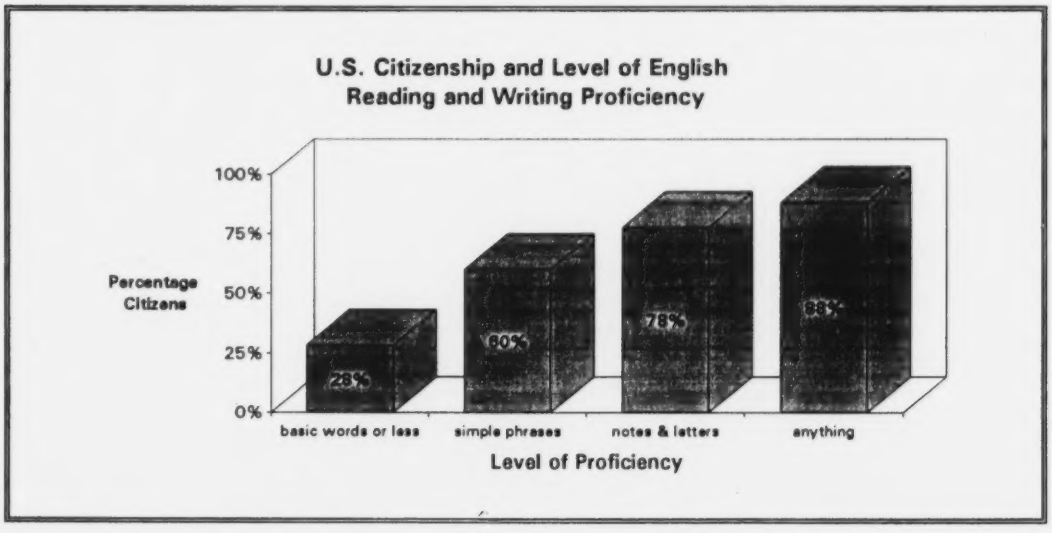
To become naturalized applicants must take an Oath of Allegiance to the United States of America. Becoming a naturalized citizen is a sign of loyalty to the U.S.. No foreign born group offers their allegiance and naturalizes at a higher rate than Southeast Asians. According to the 1992 Statistical Yearbook of the Immigration and Naturalization Service, of all immigrants entering the U.S. in the 1970's, Vietnamese naturalized at a higher rate than immigrants from any other country. For the entire U.S., more than 85% of Vietnamese have become citizens while 65% of Chinese, 30% of Cubans, 16% of Mexicans, and 14% of Canadians have naturalized. More than 200,000 Vietnamese, more than 26,000 Laotians, and almost as many Cambodians have naturalized in the last decade nationwide.

Naturalization provisions specify that a foreign born refugee must be at least 18 years old, admitted to the U.S. legally, and have resided in the U.S. for at least five years. Additional requirements include the ability to speak, read, and write the English language; knowledge of the U.S. government and U.S. history; and good moral character. Thus, there is a great advantage for Southeast Asians who are educated and who are proficient in English when it comes to passing a naturalization test.

Results of the Texas Refugee Study show that 70% of Southeast Asian refugees who arrived in the U.S. before 1987, and are thus eligible to become naturalized, have become citizens. That rate increases to 79% for Southeast Asian refugees entering the U.S. in 1979 or before. In addition to increases in naturalization over time in the country, the likelihood of naturalization increases as levels of education increase.



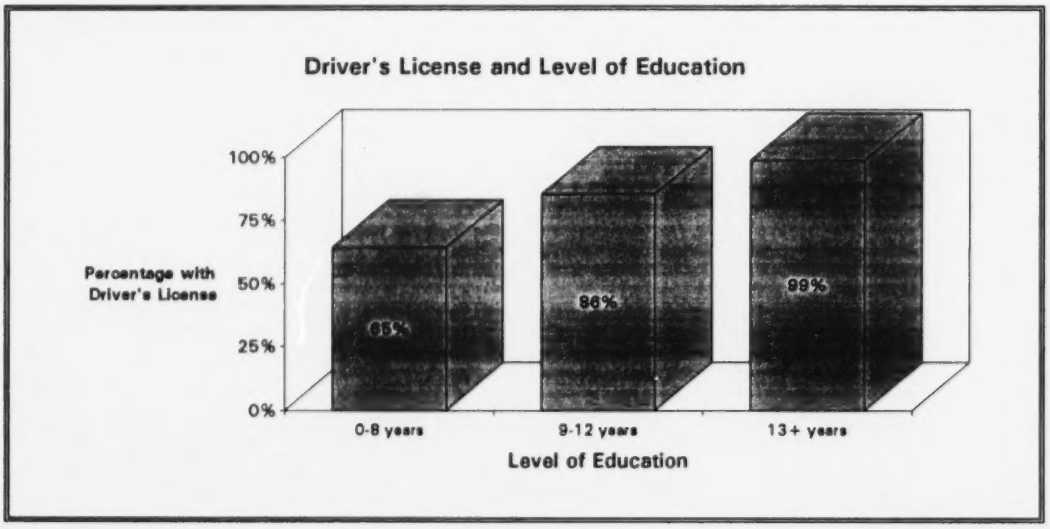
As expected with the English language requirements for becoming a citizen, Southeast Asian refugees with the ability to read and write are also more likely to become citizens.



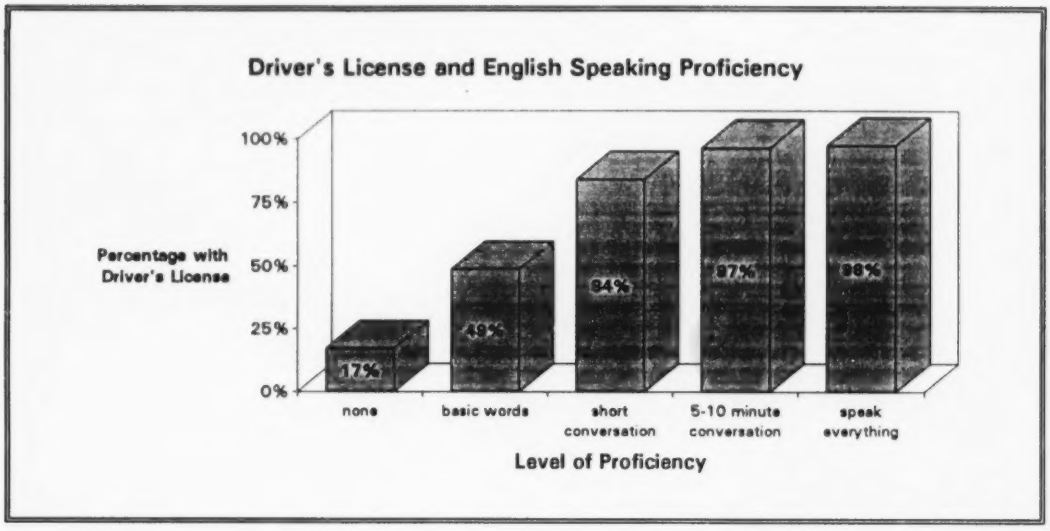
DRIVER'S LICENSE

The U.S. is a nation of drivers. For the vast majority of Americans driving is an essential part of life. Most people think nothing of driving to work, to school, to the store; to a friend's house, to the doctor's office, and on down the road. As a result, public transportation in some U.S. cities may not provide access to important areas. People who can not drive have limited access to many resources and public services in a community.

Results of the Texas Refugee Study indicate that 15% of Southeast Asian refugees ages 18 and older do not have a driver's license. Southeast Asians who have had eight or fewer years of school are the least likely to have a driver's license. As years of education increase so does the likelihood of legally being able to drive.



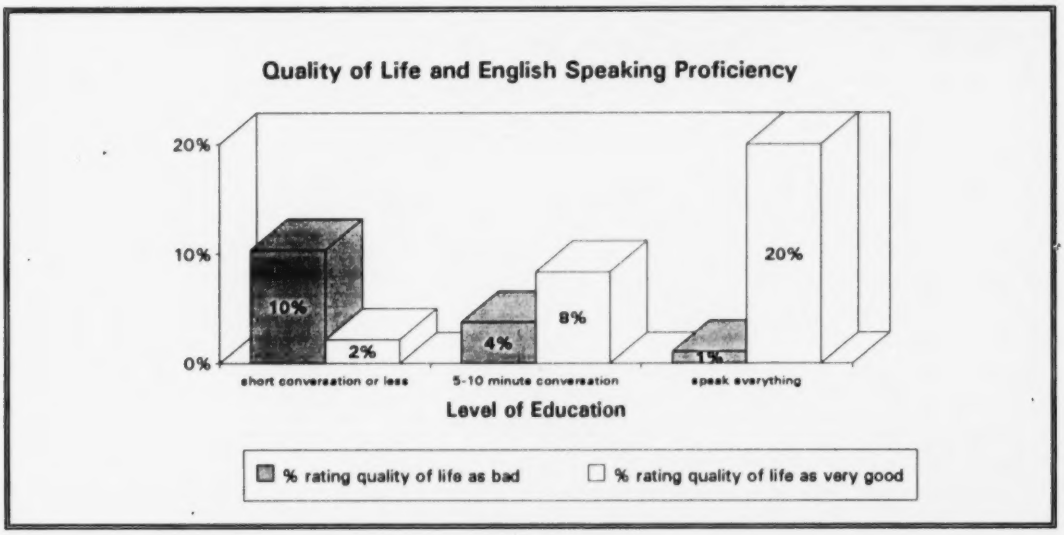
The results are even more dramatic when level of English proficiency and having a driver's license are examined together. One of the primary concerns of Texas's refugee service providers is obtaining transportation for refugees to get to English classes and to receive other services. Access to the community by driving may help to enhance both education and English proficiency as well as allow refugees to access public services and gain exposure to American culture.


Driver's License and English Speaking Proficiency
Percentage with Driver's License
100%
75%
50%
25%
0%
17%
49%
84%
87%
88%
none
basic words
short conversation
5-10 minute conversation
speak everything
Level of Proficiency

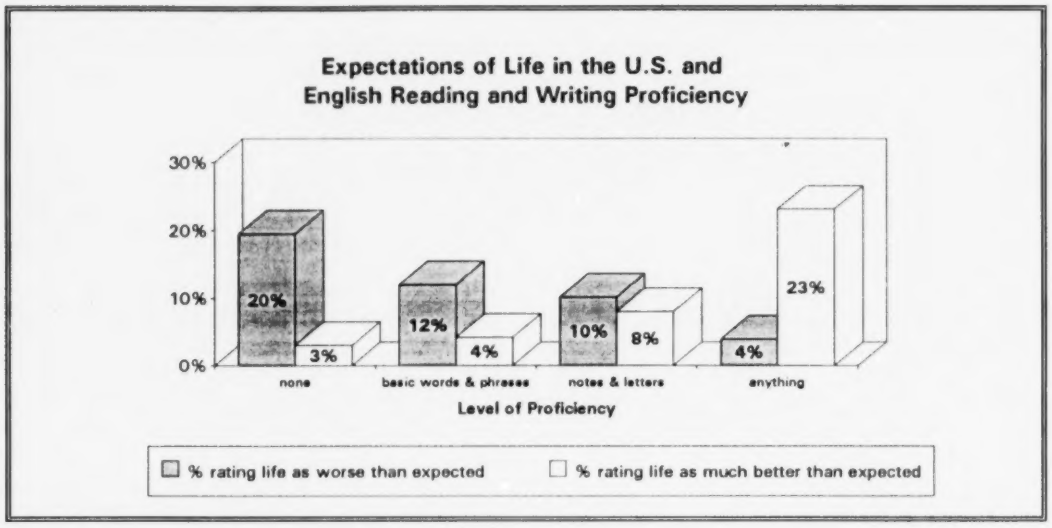
QUALITY OF LIFE, EXPECTATIONS OF U.S. LIFE & U.S. FUTURE

Income, mammography, smoking, citizenship, and driving are all very tangible. The Texas Refugee Study also asked several opinion questions of refugees. One question asked "How is the overall quality of your life here in the U.S.?" Southeast Asian refugees' responses, as is typical of most populations, tended to fall toward the middle of the scale - "o.k." or "good." However, examination of the ends of the scale shows a significant difference between Southeast Asian refugees with different English abilities. Those individiuals with high levels of English proficiency tend to have much more positive attitudes toward their U.S. experience than those with low levels of proficiency in English.

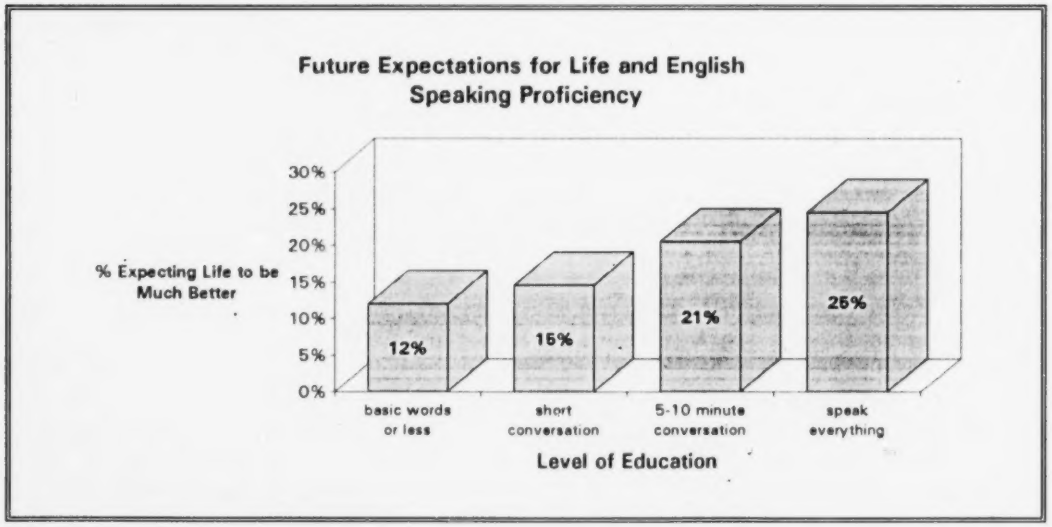
Ten percent of Southeast Asian refugees with no English speaking skills rated their life as bad, and only 1% rated life as very good. Meanwhile, only 2% of fluent English speakers rated the quality of their life as bad, and one in five rated it as very good.



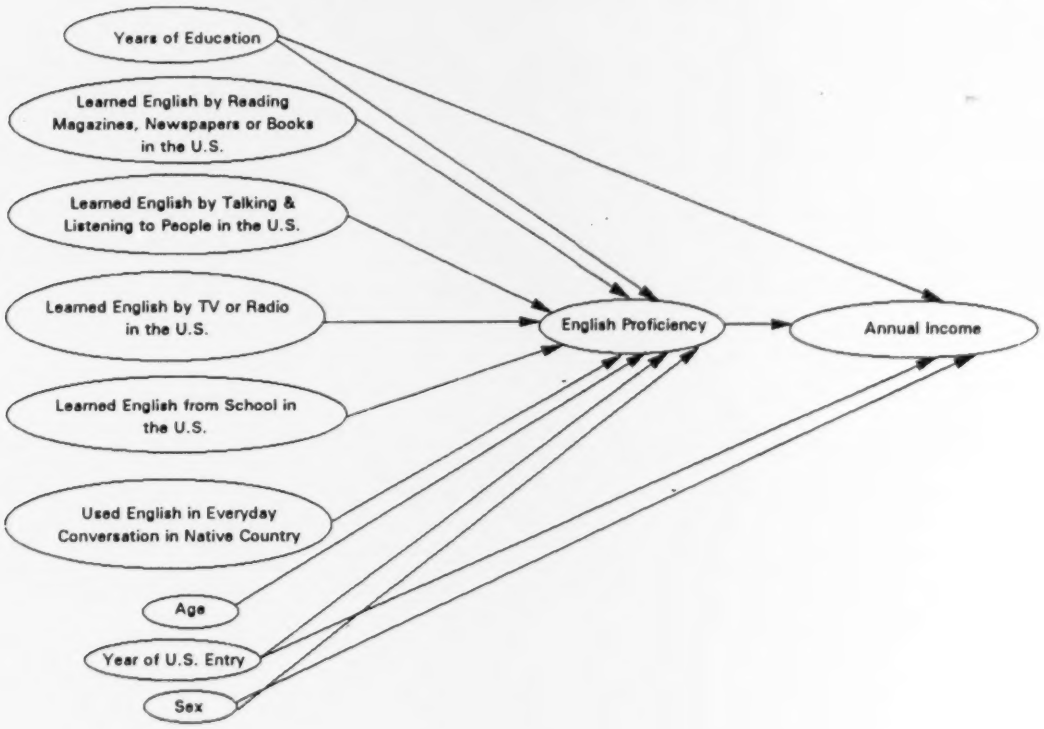
Refugees sometimes come to the U.S. with unrealistic expectations of what life will be like. Refugees were asked, "How is your life in the U.S. now, compared to how you expected it to be before coming to the U.S.?" Again, Southeast Asians who are more proficient with English are more likely to view life as "much better" and less likely to view life as "worse" than those with fewer English skills.



A third opinion question asked of refugees concerned the future. The *American Dream* is to have a better future, to be able to start with nothing and to rise upward, and to be whoever we want. Refugees were asked, "How do you expect your future to be for you here in the U.S.?" Once again, Southeast Asians who are more proficient with English are more likely to hold on to the American Dream than those who are less proficient in English.



LEARNING ENGLISH & MAKING MONEY


Years of Education
Learned English by Reading Magazines, Newspapers or Books in the U.S.
Learned English by Talking & Listening to People in the U.S.
Learned English by TV or Radio in the U.S.
Learned English from School in the U.S.
Used English in Everyday Conversation in Native Country
Age
Year of U.S. Entry
Sex
English Proficiency
Annual Income

This report has documented the clear association of English proficiency with a wide variety of benefits. The next important question is - What factors are involved with making some refugees more skilled with English than others? The factors can be divided into two general categories: behaviors that a person can control and behaviors beyond a person's control. Examples of refugees' controllable behavior include interacting with native English speakers and increasing education, both of which have been found to be associated with English proficiency (Tran, 1988, and Nguyen and Henkin, 1982, respectively). An example of a non-controllable or pre-determined factor would be time spent in the U.S. after arriving, which has been found to be significantly related to English skills (Ima and Rumbaut, 1989).

Analysis of Texas Refugee Study data uncovers four factors, beyond the control of Southeast Asian refugees, that are significantly related to English proficiency. The most closely related factor is year of U.S. entry; the longer a Southeast Asian refugee has been in the U.S. the more English proficient he or she is likely to be. The other pre-determined factors related to greater English proficiency are: being older, having used English in everyday conversation in one's native country, and being male. While this information is valuable, it is not very helpful in assisting a Southeast Asian refugee learn English since these factors are pre-determined and beyond anyone's control.

The controllable behaviors related to English proficiency help us determine how people learn English after arriving in the U.S.. Results of the Texas Refugee Study identify five behaviors that have direct and significant effects on English skills. The most important behavior related to English proficiency is education. As years of education increase, English proficiency increases. The next most important behavior in learning English is reading English newspapers, magazines, or books. A third way of learning English for Southeast Asian refugees is by talking and listening to people in English. A fourth method is watching English TV or listening to the radio. Finally, English is learned from attending school in the U.S..

The results of the Texas Refugee Study indicate that participation in English as a Second Language (ESL) programs help in improving basic English skills. However, they seldom result in bringing a Southeast Asian refugee up to the highest levels of English proficiency. This is because the majority of ESL programs lack the attention and funding required to bring refugees to full English proficiency (Chisman, Wrigley, and Ewen, 1993). Thus, while ESL classes do tend to improve very basic English skills, actual level of refugee English proficiency is explained by the activities discussed above. However, with additional funding ESL programs could look beyond basic skills and focus on more advanced levels of English proficiency.

Further analysis helps to explain a Southeast Asian refugee's income. Like with English proficiency, some of a refugee's income can be explained by factors beyond anyone's control: length of time in the U.S. and a refugee's sex (age is not significantly related to income). Results of the Texas Refugee Study indicate that English proficiency is directly related to income for Southeast Asian refugees as well as years of education. Path analysis shows that the effects of reading English, talking and listening to people in English, watching and listening to English TV and radio, and attending U.S. schools have indirect effects on income. In other words, these behaviors all are related to English proficiency, and it is English proficiency that is related to income for Southeast Asian refugees.

TAX REVENUES & ENGLISH PROFICIENCY

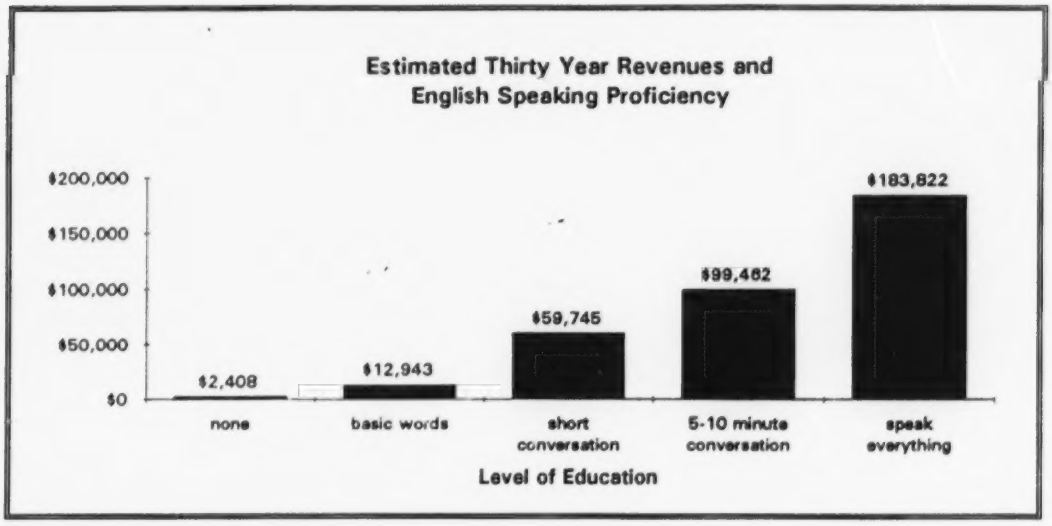
As discussed in the *Learning English* section, there are a variety of ways people with limited English proficiencies learn English. Findings from the Texas Refugee Study indicate that English as a Second Language classes help to improve a Southeast Asian refugee's English here in the U.S.. These classes are a key component of Texas's refugee services. Even with shrinking federal dollars for services to refugees in recent years, ESL remains essential for refugees with limited English proficiency.

Analysis of cost and revenue information shows that helping Southeast Asian refugees learn English is a sound economic investment for society. Increases in English proficiency are linked to higher annual incomes (see *Incomes* and *Learning English & Making Money* sections), and income results in tax revenues to state, local, and federal governments. Dollars invested in teaching Southeast Asian refugees English should result in a return on the investment with tax revenues.

To illustrate this point, estimated revenues were calculated at different levels of English skills based on incomes. If incomes are directly linked to English proficiency, then returns on investments in ESL training are very high. For example, every $1 invested in teaching a Southeast Asian refugee basic English could return $3.19 in taxes over a ten year period. Every $1 invested teaching short, everyday conversations is estimated to return $12.50 over ten years. Every $1 invested teaching English conversation that lasts 5-10 minutes is estimated to return $10.61 over ten years. Finally, every $1 invested teaching a Southeast Asian refugee to speak English fluently is estimated to return $11.27 over ten years, $22.53 over twenty years, and $33.80 over thirty years. (See Appendix K for calculations).

- The estimates are based on tax revenue returns over a ten year period, but Southeast Asian refugees average approximately thirty years in the workforce because the average age upon arrival is thirty-one years (Texas Refugee Study data). Thirty year tax revenue returns would be three times each of the above estimates for each dollar invested (see chart on next page).

The emphasis here has been on the potential economic gains for refugees and society from improved English proficiency among Southeast Asians. However, the results do not endorse the idea of a single "American" culture that Southeast Asians should adopt. Instead, multi-culturalism and diversity can continue to flourish while English skills are learned. This is supported by the Texas Refugee Study findings that Southeast Asian refugees who speak, read, and write fluent English continue to speak their native language with family members 80% of the time on average. Similarly, Southeast Asians earning $30,000 or more a year, speak their native language with their family members 79% of the time on average.



The above estimates are based on Texas Refugee Study income data, and estimated state, local, and federal tax revenues over a thirty year period (See Appendix K). The tax revenue estimates do not include money paid by Southeast Asian refugees to Social Security. Additionally, for people unfamiliar with Texas, there is not a state income tax, and Texas's overall tax burden, relative to economic activity, is "about 6 percent below the national average, and Texas ranks 32nd among the states and the District of Columbia in taxes as a percentage of income" (Texas Business Review, 1994).

Appendix A
Texas Refugee Study Methodology

TEXAS REFUGEE STUDY METHODOLOGY

Sample

Interviews took place in April, May, and June of 1993. The sample for this report consisted of 803 Vietnamese and 243 Laotian refugees age 18 and older in Harris County, Texas. The sample was made up of 56% Vietnamese and 52% Laotian males (the U.S. Office of Refugee Resettlement database indicates that new arrivals in Texas from these countries are made up of 52% and 53% males, respectively). The sample consisted of 286 randomly selected Vietnamese (all came to the U.S. prior to 1990), 119 Vietnamese who were asked by interviewers to participate (all came to the U.S. prior to 1990), 398 Vietnamese who were randomly selected from a pool of 1770 refugees who had been to one of Houston's three refugee service agencies (all came to the U.S. in 1990 or after, and the pool represents approximately 40% of newly arrived Harris County refugees 18 years old and older), and 243 Laotians who were randomly selected from a pool of 526 Laotians who agreed to participate in the study.

Site of the Study - Houston

Harris County was selected for the study because 45% of Texas's Vietnamese and 16% of Laotian refugees have been resettled in the county according to the U.S. Office of Refugee Resettlement. Harris County, which encompasses the city of Houston,.is very urban and is representative of Texas urban areas. Of Texas's newly arrived refugees, 80% have resettled in urban areas (U.S. ORR).

Survey Instrument

The survey instrument was a questionnaire with approximately 300 variables covering the following areas: demographics, education, employment, income, health, household, social services, and quality of life. Drafts of the questionnaire were reviewed by experts in the Southeast Asian community, Texas's refugee director and refugee program manager, and the directors of the three refugee service agencies in Houston. The questionnaire was pilot tested before finalized. Experts in the Vietnamese and Laotian community were contracted with to translate the questionnaire, and after the initial translations were completed, different translators reviewed the translations.

Interviewers

The interviews were conducted in the refugees' native language of Vietnamese or Laotian. The interviewers were leaders from the Vietnamese and Laotian communities: case workers from refugee service agencies, religious leaders, prominent persons in the community, and former U.S. Census Bureau workers. The University of Texas at Austin's Office of Survey Research conducted a day long training specifically prepared for the Texas Refugee Study (*Texas Refugee Study Interviewer Training Guide* available). Approximately 30 interviewers were selected, and no one was allowed to interview unless he or she was trained. Interviews began the day after training.

Data

Pre-assigned interviews. Each trained interviewer was assigned specific phone numbers and/or Vietnamese or Laotian refugees to interview. All interviewees were pre-approved by the principle investigator, and switching interviewees was not allowed without prior approval. Interviewers were trained how to initiate interviews over the phone and how to conduct the survey without biasing responses.

Examination of Completed Questionnaires. The principle investigator examined each returned questionnaire to ensure that they were completed correctly. Incomplete questionnaires were returned to the interviewers who called the interviewees again to complete the interviews. The datafile contains very little missing data.

Random Verification Checks. During training, interviewers were informed that their interviews would be verified. Verification checks were performed on 10% of the completed interviews by calling the interviewee and asking questions from the questionnaire to confirm their original answers. The verification interviewees were randomly selected and included interviews conducted by all interviewers. There was no evidence that any of the data had been falsified in the more than 100 interviews checked.

Data Integrity. The approximately 300 quantitative variables were entered into a dBase file. The data were entered a second time by a different person into a second file. A computer program compared the records from both files, and differences were checked and corrected.

Weighting the data. Texas's Vietnamese refugee population, including secondary migration, is estimated at 82,000, and approximately 20% of Texas's Vietnamese are estimated to have come to the U.S. in 1990 or after. The before-1990 and 1990-and-after samples of Vietnamese refugees were weighted to represent this ratio. Note: The U.S. Census Bureau estimated that 69,600 Vietnamese lived in Texas in 1990. Texas's Laotian population is estimated to be approximately 14,000. The Vietnamese and Laotian samples were weighted to represent the state's ratio. The weighted data equaled the original N of 1046 for all statistical analyses.

Limitations

The Texas Refugee Study, like all research, has limitations which should be considered when examining the results. All analyses are based on self-report data, and are thus accurate only to the extent reported by participants. As detailed in the sample section, the sample consisted of a random sample as well as less-than-population-complete sampling pools. Additionally, the results of this analysis hold true to populations outside the Harris County region only to the extent that Harris County is representative of other areas. Another limitation is that interviewee participation in the study was voluntary. Thus, these finding can only be extended to the entire population of Southeast Asian refugees in Harris County to the degree that those who participated in the interviews represent those who refused participation. However, this is not considered a major concern since the response rate approached ninety percent. Of greater concern is that the vast majority of interviews were conducted by telephone, and the segment of this population not owning a telephone was therefore excluded from this project. Finally, individuals who did participate in the survey were asked to do so only if they were 18 years of age or older. As a result, the results do not necessarily represent the experiences of younger Southeast Asian refugees.

Appendix B
Variables

VARIABLES

ENGLISH SPEAKING PROFICIENCY

Describe your ability to understand and speak English: [Read all five answers]

1 I can not understand or speak any English.
2 I can only understand and speak a few basic words and phrases - such as "Hello, how are you?" and "Good morning."
3 I can understand and speak very short, everyday conversations - such as those at a store.
4 I can understand and speak conversations that last for 5 - 10 minutes.
5 I can understand and speak everything in English - including conversations, shows, and speeches.

ENGLISH READING & WRITING PROFICIENCY

Describe your ability to read and write English: [Read all five answers]

1 I can not read or write any English.
2 I can read and write only a few basic words and phrases - such as "Hello, how are you? and "Good morning?"
3 I can read and write simple phrases and sentences - such as those required on forms or job applications.
4 I can read and write a note or letter - such as explaining instructions or telling a story
5 I can write anything I need or want to in English.

ENGLISH PROFICIENCY =

ENGLISH SPEAKING PROFICIENCY + ENGLISH READING & WRITING PROFICIENCY

HIGHEST GRADE OF EDUCATION

What is the highest grade of regular school that you have completed either in the U.S. or another country? Please exclude any vocational, trade, or business school.

00 Never attended school
01 1st grade elementary or primary, nursery school, or kindergarten
02 2nd grade
03 3rd grade
04 4th grade
05 5th grade
06 6th grade
07 7th grade
08 8th grade
09 1st year high school or secondary, no high school diploma
10 2nd year h.s., no high school diploma
11 3rd year h.s., no high school diploma
12 high school diploma
13 1 year college/professional school, no college degree
14 2 years college/professional school, no college degree
15 3 years college/professional school, no college degree
16 college degree
17 1 year graduate school
18 Master's degree or 2 years graduate school
19 3 or more years graduate school, no Medical or Doctoral degree
20 Medical or Doctoral degree

ANNUAL INCOME

What was your annual income from all the work you did in 1992, before taxes or deductions? Include all your earnings. $_____

[Note: Included were refugees entering the U.S. before 1992, and who were currently working or looking for work]

DOLLARS PER HOUR

Currently, what is your average pay, before taxes and deductions, each week: $_____.

[Note: Included were refugees currently working]

DIVIDED BY

How many hours per week do you work at this job on average? _____hours per week

MAMMOGRAM

As you may know, a mammogram is an x-ray test for breast cancer. Have you ever had a mammogram?

0 NO
1 YES

SMOKING

Do you smoke cigarettes now?

0 NO
1 YES

DRIVER'S LICENSE

Do you have a driver's license?

01 YES
02 NO

CITIZENSHIP

Are you a citizen of the U.S.?

01 YES
02 NO

QUALITY OF LIFE

In your opinion, how is the overall quality of your life here in the U.S.? [Read all five answers]

1 very bad
2 bad
3 o.k.
4 good
5 very good

EXPECTATIONS OF U.S. LIFE

How is your life in the U.S. now, compared to how you expected it to be before coming to the U.S.?

1 much worse
2 worse
3 about what I expected
4 better
5 much better

EXPECTATIONS OF FUTURE IN U.S.

How do you expect your future to be for you here in the U.S.?

1 much worse
2 worse
3 about the same
4 better
5 much better

LEARNING ENGLISH

I will read a list of different ways people learn English, please answer YES or NO to whether you have learned English in this way.

YES	NO	School in the U.S.
YES	NO	Talking & listening to people in the U.S.
YES	NO	Watching TV or listening to radio in the U.S.
YES	NO	Reading newspapers, magazines, or books in the U.S.

Appendix C
English Proficiency and Educational Levels

B10 Speak English

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
none	1	41	4.0	4.0	4.0
basic words	2	106	10.1	10.1	14.1
short conversation	3	270	25.8	25.8	39.9
5-10 minute conversa	4	356	34.1	34.1	73.9
speak everything	5	273	26.1	26.1	100.0
	Total	1046	100.0	100.0	

Valid cases 1046 Missing cases 0

B11 Read and Write English

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
none	1	71	6.8	6.8	6.8
basic words	2	119	11.3	11.3	18.1
simple phrases	3	345	33.0	33.0	51.1
notes and letters	4	271	25.9	25.9	77.0
anything	5	240	23.0	23.0	100.0
	Total	1046	100.0	100.0	

Valid cases 1046 Missing cases 0

EDUC5 Highest Education

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0-8 years	1	230	22.0	22.0	22.0
9-11 years	2	192	18.3	18.3	40.3
12 years	3	275	26.3	26.3	66.6
13-15 years	4	168	16.1	16.1	82.7
16+ years	5	181	17.3	17.3	100.0
	Total	1046	100.0	100.0	

Valid cases 1046 Missing cases 0

Appendix D
Income

T-Tests: Income and Level of Education

Comparison of Annual Income by Educational Level for those Educated In and Outside of the U.S.

Level of Education	Annual Income		t- value(df)	2-tailed sig. level
	No U.S. Education	Some U.S. Education		
1. 0-8 years	$ 10,011.60	$ 5,571.73	1.29(141)	.199
2. 9-11 years	$ 15,585.30	$ 12,674.26	.95(120)	.344
3. 12 years	$ 17,750.57	$ 12,628.84	1.83(176)	.070
4. 13-15 years	$ 18,689.63	$ 17,269.04	.52(126)	.602
5. 16+ years	$ 16,401.28	$ 30,791.78	-4.20(139)	.000*

* indicates differences significant at p<.001

Comparison of Dollars Per Hour by Educational Level for those Educated In and Outside of the U.S.

Level of Education	Dollars Per Hour		t- value(df)	2-tailed sig. level
	No U.S. Education	Some U.S. Education		
1. 0-8 years	$ 6.66	$ 5.48	.88(93)	.379
2. 9-11 years	$ 7.32	$ 7.44	-.14(100)	.888
3. 12 years	$ 8.63	$ 8.29	.27(784)	.784
4. 13-15 years	$ 8.29	$ 10.02	-1.65(118)	.101
5. 16+ years	$ 10.12	$ 17.98	-3.27(126)	.001*

* indicates differences significant at p=.001

Annual Income By Speak English

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	4	40860382294	10215095574	55.1098	.0000
Within Groups	707	1.3105E+11	185359024.0		
Total	711	1.7191E+11			

Multiple Range Tests: Scheffe test with significance level .05
(*) Indicates significant differences which are shown in the lower triangle

Mean		Group 1 2 3 4 5
749.7687	Grp 1	
4032.3542	Grp 2	
11284.6744	Grp 3	*
16442.8797	Grp 4	* * *
27442.7401	Grp 5	* * * *

Annual Income By Read and Write English

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	4	35318574513	8829643628	45.7027	.0000
Within Groups	707	1.3659E+11	193197507.4		
Total	711	1.7191E+11			

Multiple Range Tests: Scheffe test with significance level .05
(*) Indicates significant differences which are shown in the lower triangle

Mean		Group 1 2 3 4 5
3399.8147	Grp 1	
8764.8177	Grp 2	
13089.8187	Grp 3	*
17431.7041	Grp 4	* * *
27658.7220	Grp 5	* * * *

Dollars Per Hour By Speak English

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	4	7961.2299	1990.3075	47.3928	.0000
Within Groups	602	25281.5926	41.9960		
Total	606	33242.8224			

Multiple Range Tests: Scheffe test with significance level .05
(*) Indicates significant differences which are shown in the lower triangle

		Group 1 2 3 4 5
Mean		
4.5341	Grp 1	
5.1606	Grp 2	
6.3004	Grp 3	
8.4480	Grp 4	*
14.8212	Grp 5	* * * *

No U.S. Education
Dollars Per Hour By Highest Education

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	4	340.9820	85.2455	3.4217	.0092
Within Groups	369	9193.1046	24.9136		
Total	373	9534.0866			

Multiple Range Tests: Scheffe test with significance level .05
- No two groups are significantly different at the .05 level

No U.S. Education
Dollars Per Hour By Read and Write English

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	4	1377.8776	344.4694	15.5843	.0000
Within Groups	369	8156.2090	22.1035		
Total	373	9534.0866			

Multiple Range Tests: Scheffe test with significance level .05
(*) Indicates significant differences which are shown in the lower triangle

		Group 1 2 3 4 5
Mean		
5.1299	Grp 1	
6.2115	Grp 2	
6.7115	Grp 3	
9.4682	Grp 4	* * *
12.0058	Grp 5	* * *

Some U.S. Education
Annual Income By Highest Education

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	4	18309643770	4577410942	20.5983	.0000
Within Groups	256	56888952586	222222471.0		
Total	260	75198596355			

Multiple Range Tests: Scheffe test with significance level .05
(*) Indicates significant differences which are shown in the lower triangle

		Group 1 3 2 4 5
Mean		
5571.7311	Grp 1	
12628.8442	Grp 3	
12674.2614	Grp 2	
17269.0437	Grp 4	
30791.7781	Grp 5	* * * *

Appendix E
Mammogram Screenings

Speak English by Mammogram

		Mammogram	
Row % Col %		no	yes
		0	1
Speak English			
basic words or less	1	78.3 54.9	21.7 16.7
short conversation	3	58.5 25.1	41.5 19.5
5-10 minute conversation	4	33.7 17.5	66.3 37.7
speak everything	5	9.5 2.5	90.5 26.2

Chi Square(41.08) df(3) p<.001
Goodman & Kruskal Tau(.242)

Highest Education by Mammogram

		Mammogram	
Row % Col %		no	yes
		0	1
Highest Education			
0-8 years	1	69.4 57.8	30.6 27.9
9-11 years	2	58.6 15.2	41.4 11.8
12-15 years	3	37.1 21.7	62.9 40.2
16+ years	4	22.3 5.3	77.7 20.1

Chi Square(23.64) df(3) p<.001
Goodman & Kruskal Tau (.126)

Appendix F
Smoking

Highest Education by Smoke Cigarettes

Highest Education		Smoke Cigarettes: no (0)	Smoke Cigarettes: yes (1)
0-11 years	1	50.5 27.8	49.5 42.1
12+ years	2	65.8 72.2	34.2 57.9

Chi Square(13.38) df(1) p<.001
Goodman & Kruskal Tau (.022)

Read and Write English by Smoke Cigarettes

Read and Write English		Smoke Cigarettes: no (0)	Smoke Cigarettes: yes (1)
simple phrases or less	3	50.9 36.1	49.1 53.7
notes and letters	4	64.3 32.0	35.7 27.4
anything	5	72.2 32.0	27.8 18.9

Chi Square(18.81) df(2) p<.001
Goodman & Kruskal Tau (.034)

Appendix G
Citizenship

Highest Education by Citizenship

Highest Education	Row % Col %	Citizenship yes 1	 no 2
0-8 years	1	35.8 11.0	64.2 45.2
9-11 years	2	60.5 14.5	39.5 21.7
12 years	3	73.5 23.6	26.5 19.5
13-15 years	4	86.8 21.5	13.2 7.5
16+ years	5	91.7 29.4	8.3 6.1

Chi Square (126.73) df(4) p<.001
Goodman & Kruskal Tau (.199)

Read and Write English by Citizenship

Read and Write English	Row % Col %	Citizenship yes 1	 no 2
basic words or less	2	28.2 5.3	71.8 31.0
simple phrases	3	59.9 24.3	40.1 37.2
notes letters	4	77.7 28.7	22.3 18.9
anything	5	88.2 41.8	11.8 12.8

Chi Square(114.71) df(3) p.<.001
Goodman & Kruskal Tau(.181)

Appendix H
Driver's License

Highest Education by Driver's License

Highest Education	Row % / Col %	Driver's License: yes (1)	Driver's License: no (2)
0-8 years	1	64.5 16.6	35.5 53.2
9-12 years	2	85.5 44.6	14.5 44.2
13+ years	5	98.9 38.7	1.1 2.6

Chi Square(130.99) df(2) p<.001
Goodman & Kruskal Tau(.125)

Speak English by Driver's License

Speak English	Row % / Col %	Driver's License: yes (1)	Driver's License: no (2)
none	1	17.2 .8	82.8 22.4
basic words	2	48.8 5.8	51.2 35.4
short conversation	3	84.2 26.4	15.8 27.8
5-10 minute conversation	4	95.6 38.2	4.4 10.1
speak everything	5	97.6 29.8	2.4 4.3

Chi Square(299.02) df(4) p<.001
Goodman & Kruskal Tau(.316)

Appendix I
Quality of Life, Expectations of U.S. Life and Future

Speak English by Quality of Life in U.S.

		Quality of Life in U.S.			
	Row % Col %	bad	o.k.	good	very good
		2	3	4	5
Speak English					
short conversation or less	1	10.4 72.6	63.3 46.5	24.0 30.9	2.2 9.9
5-10 minute conversation	2	3.8 22.3	55.7 35.0	32.1 35.3	8.4 31.9
speak everything	3	1.1 5.0	38.5 18.5	40.3 33.9	20.1 58.2

Chi Square(120.52) df(6) p<.001
Gamma(.445)

Read and Write English by Future U.S. Expectations

		Future U.S. Expectations		
	Row % Col %	about the same	better	much better
		3	4	5
Read and Write English				
none	1	6.2 25.5	25.7 19.5	68.1 3.6
basic words	2	14.2 11.9	76.2 15.2	9.6 7.6
simple phrases	3	12.3 29.0	75.2 42.3	12.4 27.7
notes and letters	4	13.0 19.3	64.6 22.9	22.4 31.4
anything	5	20.2 22.0	50.8 13.2	28.9 29.7

Chi Square(1028.41) df(8) p<.001
Gamma(.211)

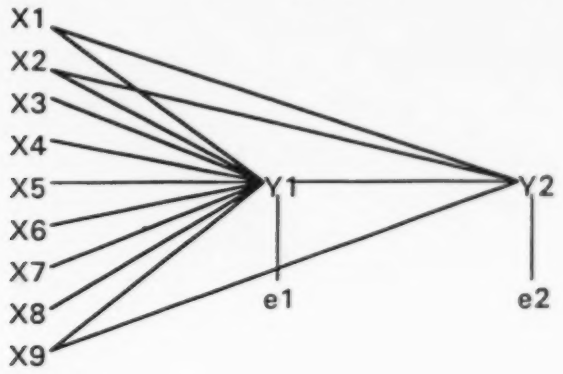
Speak English by Future U.S. Expectations

		Future U.S. Expectations			
Row % Col %		about the same 3	better 4	much better 5	very good 5
Speak English					
basic words or less	1	4.3 20.4	21.7 18.4	62.0 14.2	12.0 9.0
short conversation	2	.4 3.6	20.5 31.8	64.5 27.1	14.6 20.0
5-10 minute conversation	3	2.7 30.8	12.2 25.0	64.5 35.8	20.5 37.2
speak everything	4	16.9 21.6	54.6 16.7	28.6 34.7	24.5 33.8

Chi Square(34.78) df(9) p<.001
Gamma(.128)

Appendix J
English Proficiency and Income Path Analysis

Path Analysis: Factors Affecting English Proficiency and Annual Income



Independent Variables:
X1 Years of Education
X2 Year of Entry
X3 Learned English by Reading Magazines, Newspapers or Books in U.S.
X4 Age
X5 Used English in Everyday Conversation in Native Country
X6 Learned English from School in the U.S.
X7 Learned English by Talking & Listening to People in the U.S.
X8 Learned English by TV or Radio in the U.S.
X9 Sex

Dependent Variables:
Y1 English Proficiency
Y2 Income

Factors For English Proficiency:
R Square=.76627
Adjusted R Square=.76402
e1=.48346

Variable:	B	SE B	Beta	T	Sig T
X1	.208562	.011654	.385096	17.896	.0000
X2	-.095627	.006757	-.265506	-14.153	.0000
X3	-.928954	.102936	-.197929	-9.025	.0000
X4	-.031436	.003386	-.179491	-9.284	.0000
X5	-.802739	.105694	-.128591	-7.595	.0000
X6	-.699944	.090074	-.154096	-7.771	.0000
X7	-.576674	.136842	-.091549	-4.214	.0000
X8	-.339323	.143673	-.050124	-2.362	.0184
X9	-.256714	.073573	-.057845	-3.489	.0005
(constant)	19.245944	.641621		29.996	.0000

Factor For Income:
R Square=.38765
Adjusted R Square=.38354
e2=.78253

Variable:	B	SE B	Beta	T	Sig T
X1	.013023	.004800	.122422	2.713	.0069
X2	-.040616	.002745	-.508007	-14.797	.0000
Y1	.021829	.010558	.098202	2.068	.0319
X9	-.021829	.010558	.027123	-4.433	.0000
(constant)	7.300780	.251522		29.026	.0000

Appendix K
Tax Revenues, ESL Costs, and Calculations for Investment Returns

Southeast Asian Refugee Revenues for Different
Levels of English Speaking Proficiency

5	4	3	2	1	English Proficiency (a)
$27,443	$16,443	$11,285	$4,032	$750	Annual Income (b)
$3,191	$1,556	$784	$0	$0	Federal Tax Contribution (c)
$1,537	$921	$632	$226	$42	Tax contribution to Texas @ $56 per $1,000 (d)
$1,400	$839	$576	$206	$38	Taxes to local gov't @ $51 per $1,000 (d)
$6,127	**$3,315**	**$1,991**	**$431**	**$80**	**Total Estimated Annual Tax Contribution**
$61,274	$33,154	$19,915	$4,314	$803	10 year total (e)
$122,548	$66,308	$39,830	$8,628	$1,605	20 year total (e)
$183,822	$99,462	$59,745	$12,943	$2,408	30 year total (e) (f)

References:

(a) The categories for English speaking proficiency are as follows:

1 I can not understand or speak any English.
2 I can only understand and speak a few basic words and phrases - such as "Hello, how are you?" and "Good morning."
3 I can understand and speak very short, everyday conversations - such as those at a store.
4 I can understand and speak conversations that last for 5 - 10 minutes.
5 I can understand and speak everything in English - including conversations, shows, and speeches.

(b) Reported annual income in 1992 for Southeast Asian refugees who arrived in the U.S. before 1992, and who are currently looking for work or working.

(c) Federal Tax Contribution was calculated for all five incomes using a 1993 income tax return 1040EZ Form. The forms were completed assuming that person is single and has no taxable interest.

(d) Texas Comptroller of Public Accounts, Research Division. 1991 Census data on average taxes indicate that for every $1,000 of income, $56 in state taxes and $51 in local taxes are generated. Texas has a sales tax of 8%, and has no State income tax.

(e) These estimates assume constant numbers. Constant incomes are unlikely - refugees will probably earn less in the first few years after arrival, and more the longer they live in the U.S. The annual incomes above are averages.

(f) Estimated working years exceeds 30. The average age of Southeast Asian refugees when they arrived in the U.S. is just under 31 years.

Cost and Classroom Hour Estimates
for Improvements in English

The Texas Office of Immigration and Refugee Affairs contracts with English as a Second Language (ESL) programs to provide training to refugees. The directors of three different ESL programs were asked to respond to the following request, "...please estimate the average cost and number of classroom hours for an average refugee from Vietnam or Laos to move from one category of English proficiency to another as described by the following categories."

The categories for English speaking proficiency are as follows:

1 I can not understand or speak any English.
2 I can only understand and speak a few basic words and phrases - such as "Hello, how are you?" and "Good morning."
3 I can understand and speak very short, everyday conversations - such as those at a store.
4 I can understand and speak conversations that last for 5 - 10 minutes.
5 I can understand and speak everything in English - including conversations, shows, and speeches.

Their responses were as follows:

	Director 1	Director 2	Director 3
From Level 1 to 2:	$85 and 72 hrs	$1,100 and 210 hrs	$92 and 20 hrs
From Level 2 to 3:	$295 and 250 hrs	$1,248 and 240 hrs	$276 and 60 hrs
From Level 3 to 4:	$295 and 250 hrs	$1,248 and 240 hrs	$552 and 120 hrs
From Level 4 to 5:	not available	$2,496 and 480 hrs	not available

The different estimates from the ESL directors reflect differences in programs as well as different interpretations of the English categories. All three directors estimate that the acquisition of basic English, represented in the improvement from level 1 to 2, is the least time consuming and costly of the improvements. Similarly, improving from level 4 to 5 is estimated to be the most time consuming and costly. Directors 1 and 3 felt that this level of improvement was beyond the scope of their ESL program, and for a Southeast Asian refugee to reach level 5 would require community exposure and/or higher education rather than classroom activity.

The estimates by Director 2 are considerably higher than the other two estimates. To calculate these estimates this director converted the survey's levels to corresponding Mainstream English Language Training (M.E.L.T.) levels as follows:

Survey Level	M.E.L.T. Level
1	0
2	2
3	4
4	6
5	10

This director then calculated cost and time estimates based on data from randomly pulled case-files and national averages pulled from the Refugee Social Services Providers' Manual. For the purposes of calculating returns on investments in Southeast Asian refugee English training the highest costs were used. The highest costs were selected so as to produce the most conservative estimate of returns on investments.

Calculations of Estimated Tax Revenues

Estimated 10 year Tax Revenue		Estimated 10 year Tax Revenue		Tax Revenue Gain		Estimated ESL Costs		Estimated Revenues per $1.00 Invested
(level 2) $4,314	-	(level 1) $803	=	$3,511	÷	$1,100	=	$3.19
(level 3) $19,915	-	(level 2) $4,314	=	$15,601	÷	$1,248	=	$12.50
(level 4) $33,154	-	(level 3) $19,915	=	$13,239	÷	$1,248	=	$10.61
(level 5) $61,274	-	(level 4) $33,154	=	$28,120	÷	$2,496	=	$11.27

ENGLISH SPEAKING PROFICIENCY

Describe your ability to <u>understand</u> and <u>speak</u> English:

1 I can not understand or speak any English.

2 I can only understand and speak a few basic words and phrases - such as "Hello, how are you?" and "Good morning."

3 I can understand and speak very short, everyday conversations such as those at a store.

4 I can understand and speak conversations that last for 5 - 10 minutes.

5 I can understand and speak everything in English - including conversations, shows, and speeches.

REFERENCES

Bates, S. R., Hill, L.& Barrett-Connor E. (1989). Cardiovascular Disease Risk Factors in an Indochinese Population. American Journal of Preventative Medicine, 5, 15-20.

Bureau of Business Research, College and Graduate School of Business, University of Texas at Austin. (1994, April). Texas Taxes: A Comparison with Other States. Texas Business Review.

Center for Disease Control. (1992). Cigarette Smoking Among Chinese, Vietnamese, and Hispanics-California, MMWR , 41, 362-367.

Chisman, F.P., Wrigley, H.P., & Ewen, D.T. (1993). ESL and the American Dream: A Report on an Investigation of English as a Second Language Service for Adults, Washington, DC: The Southport Institute for Policy Analysis.

Frost, F.J., Tollestrup, K., Vu, D., Alexander, E.R., Riess, J., & Kobayashi, J.M. (1989). Cigarette Smoking Among Southeast Asian Immigrants-Washington State.

Ima, K. & Rumbaut, R.G. (1989, June). Southeast Asian Refugees in American Schools: A Comparison of Fluent-English-Proficient and Limited-English-Proficient Students. Topics in Language Disorders, 9(3), 54-75.

U. S. Department of Justice, Immigration and Naturalization Service. (1992) Statistical Yearbook of the Immigration and Naturalization Service.

Jenkins, C.N.H., McPhee, S.J., Bird, J.A.& Bonilla, N.T.H. (1990). Cancer Risks and Prevention Behaviors Among Vietnamese Refugees. West Journal of Medicine, 153, 34-39.

Khoa, L. X. (1992, Winter). Refugee Economic Self Sufficiency. The Bridge, 10, 1,24.

Nguyen L.T. & Henkin, A. B. (1990, Winter). Vietnamese Refugees in the United States: Adaptation and Transitional Status. Journal of Ethnic Studies, 9(4), 101-116.

As smokers heed warnings, California loses tax income. (1994, April 3). Austin American-Statesman, p.6.

Texas Department of Health. (1992). Texas Behavior Risk Factor Surveillance Data.

Tran, T. V. (1988, Dec). Sex Differences in English Language Acculturation and Learning Strategies Among Vietnamese Adults Aged 40 and Over in the United States. Sex-Roles, *19*, 747-758.